

Listing of Claims:

1. (Currently Amended) A helical screw rotor compressor ~~(K)~~ which is adapted to work against a pressure container ~~(T)~~ whose pressure ~~(P)~~ is allowed to vary between a lowest pressure P2 and a highest pressure P1, said compressor ~~(K)~~ being driven by an electric motor ~~(M)~~,

wherein in an operating range defined by ~~the~~ a pressure interval $[[P]]$ of the pressure container ~~(T)~~, the motor has a characteristic such that halving of ~~the~~ a load torque of said motor will result in an increase of at least six percent in ~~the~~ a speed of said motor,

wherein the electric motor has a characteristic such that halving of the load torque of said motor will result in an increase in the speed of said motor of at most 100 percent, and wherein the electric motor is a commutator motor.

Claims 2 and 3 (Canceled).

4. (Currently Amended) A compressor ~~(K)~~ according to claim 1, ~~characterized in that~~ wherein the compressor ~~(K)~~ is optimised for an internal volume factor at which ~~the~~ a pressure of the compressor ~~(K)~~ is lower than $P2 + 0.85 \cdot (P1 - P2)$ at ~~the~~ an opening instance.

5. (Currently Amended) A compressor ~~(K)~~ according to
claim 4, ~~characterized in that~~ wherein the compressor ~~(K)~~ is
optimised for an internal volume factor at which the pressure of
the compressor ~~(K)~~ is equal to the lowest ~~working~~ pressure P2 in
5 the pressure container at the opening instance.

6. (Currently Amended) A compressor ~~(K)~~ according to
claim 4, ~~characterized in that~~ wherein the compressor ~~(K)~~ is
optimised for an internal volume factor at which the pressure of
the compressor ~~(K)~~ is lower than the lowest ~~working~~ pressure P2
5 in the pressure container at the opening instance.